

**Assessment, Improvement, Measurement (AIM) Report: 03/13/2015****Reporting Years:** 2011-2016**Program:** Respiratory**Coordinator(s):** James Matchuny, Martin Baxter, Karman Wheeler**Program Quality and Student Success****External awards or other recognitions of students, faculty, and/or program.**

	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Students					
Faculty					
Program (include accreditation if applicable)	CoARC continuing accreditation	CoARC continuing accreditation	CoARC continuing accreditation	CoARC continuing accreditation	

**Average actual time and credits to degree completion.**

	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
General Education Credit Hours					
Technical Credit Hours					
Total Credit Hours					
Number of Graduates	14 AD (2010-11)	14 AD (2011-12)	12 AD (2012-13)		
Average Actual Time to Degree	4.2 yrs.	4.2 yrs.	3.87 yrs.		
Average Actual Credits to Degree	112	99	104		

**Employer and student satisfaction.**

	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Employer Satisfaction Survey Results		12/12=100% (2010-11 grads))	8/11=73% (rating of 2011-12 grads, not program)	100% satisfied (2013 grads)	
Graduate/student satisfaction		10/11=91% (2010-11 grad surveys)	14/14=100% (2011-12 grad surveys)	11/13 surveyed; 100% satisfied	
Advisory Board/Employer Recommendations for Improvement	See the 2012 Program Update and CoARC supporting documents	See the 2013 Program Update and CoARC supporting documents	See the 2014 Program Update and CoARC supporting documents		

**Job placement data for program graduates.**

	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Number of graduates	14 (2011 graduates)	14 surveyed (2012 grads)	13	12 (2012-13)	
Number of graduates gaining employment	13	14	12	10 employed; 1 not seeking employment.	
Percentage of graduates gaining employment	92.9%	100%	92% prog info	83% (10/12)	
KY Unemployment Insurance job data		UI = 83%	UI= 90%+	90%+ (n=20)	

**Pass rates on licensure/certification exams (if applicable).**

	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Total # graduates attempting	14 (2011 graduates)	14 (2012 grads)	11 (2013 grads)	16 (2014 grads)	
Total # passing on first attempt	11	11	9	16	
Total # passing after multiple attempts	14	14	1		
Pass rate of all attempting	100%	100%	91%	100%	

**Productivity and Funding****Student measures.**

	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Enrollment (Academic Year)	39	40	37		
Fall Enrollment		16 + 78 pending Fall 2011 (spring=34)	15 + 31 pndg (Fall 2012)	20 (Fall 2013)	
Credentials Conferred	14 AD	14 AD (2011-12)	12 AD; 4 certs (2012-13)	18 AAS (2013-14)	
Credit hour production	832 (2010-11)	832 (2011-12)	798 (2012-13)		

**Student credit hour per instructional faculty FTE.**

	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Student credit hour per instructional faculty FTE.	409.2 (CPE)	409.2 (CPE)	392.5		

**Extramural funding.**

Source of Funding	2011-2012
No funding sources	

<b>Source of Funding</b>	<b>2012-2013</b>
No funding sources	

<b>Source of Funding</b>	<b>2013-2014</b>
No funding sources	

<b>Source of Funding</b>	<b>2014-2015</b>
2014 Perkins - EKG machine	\$1,200.00

<b>Source of Funding</b>	<b>2015-2016</b>
No funding sources	

**Comments (2012-2013)**

<b>Roles</b>	<b>Comments</b>
<b>Coordinator</b>	
1. Strengths of the Program	
2. Items Requiring Continued Attention	
3. Document and provide evidence indicating how last year's program review resulted in improvements in the program.	(12/14) Program strengths include an systematic outcome based approach for program improvement. The applicant pool continues to be strong with over 50 applicants for the past 2 years. The transition of the new Director of Clinical Education has went well. Please review the Respiratory Care program annual accreditation report that was submitted in June 2012. To create this report outcome and resource assessment data is collected during the spring semester, May and June. Program faculty meet to analyze the data to develop action plans for advisory committee approval prior to submitting the annual external accreditation report. (12/14) Findings: The next cycle of outcome and resource assessment will occur during the spring semester. (12/14)
<b>Assistant Dean</b>	I have read and agree with the comments submitted by the program director. The program continues to successfully fill the incoming classes and the graduates are finding employment. employment.
<b>Dean</b>	Program continues to attract and prepare students in this field. The program has a positive profile in the health care community.
<b>Vice President</b>	

**Comments (2013-2014)**

<b>Roles</b>	<b>Comments</b>
<b>Coordinator</b>	
1. Strengths of the Program	Strengths of the program include a systematic system of measuring program outcomes and developing action plans for program improvement. National Board for Respiratory Care (NBRC) are consistently at or above the national average. Employer and graduate survey responses are in agreement that the program prepares graduates for success in the

	workplace. Resource assessment completed by students and faculty consistently indicate that the program has the resources to graduate competent respiratory care practitioners.
2. Items Requiring Continued Attention	Continue to develop strategies to improve inter-rater reliability among clinical faculty Work on a curriculum implementation that involves only one or no summer classes Increase recruitment activities to assure a full class is admitted without the need for deadline extensions
3. Document and provide evidence indicating how last year's program review resulted in improvements in the program.	<p><b>ACTION PLAN TO IMPROVE NBRC EXAM RESULTS</b> from the class of 2012. To improve graduate performance on category 2A ♦ Manipulate Equipment by Order or Protocol ♦ more emphasis will be placed on troubleshooting equipment in the lab. More lecture/lab will also be spent on the use of high flow nasal cannulas, IPPB and the use of speaking valves with tracheostomy tubes. Bronchial hygiene protocols using case studies have already been incorporated into the RCP 122 course to improve category 3C. Remove Bronchopulmonary Secretions on the CRT exam. The strategy to improve category 3D ♦ Achieve Adequate Respiratory Support ♦ on the CRT exam faculty will begin lab once a week with a discussion of a ventilator patient the students have in the clinical setting. Category 3I ♦ Initiate, Conduct, or Modify Respiratory Care Techniques in an Emergency Setting ♦ warrants special attention because it is the only category that students performed below the national avg. on both the CRT and the WRRT exams. The program will add further emphasis on the Neonatal Resuscitation Program (NRP) and Pediatric Advanced Life Support (PALS) in the curriculum. The program would like to make it possible for the students to complete the American Heart Association (AHA) courses while in the program. Category 3I also includes questions related to participation in the following: a. land / air patient transport b. intra-hospital patient transport c. disaster management d. medical emergency team (MET) e.g., rapid response team Patient transport via all modalities, disaster management and rapid response team content, including sample questions, will be added to the ACLS and respiratory care seminar courses. Graduate performance on category 2C ♦ Perform Quality Control Procedures ♦ on the WRRT remains below the national avg. It is felt that this content is covered throughout the curriculum especially in the RCP 140 course which has PFTs and ABG analysis and the mechanical ventilation courses. A unit of material will be incorporated into the respiratory care seminar course to improve graduate performance on this content. Category 3A. ♦ Maintain Records and Communicate Information ♦ will be addressed by incorporating representative NBRC type questions to illustrate to the students how this category is tested. To improve graduate performance on category 3B ♦ Maintain a Patent Airway Including the Care of Artificial Airways ♦ on the WRRT exam an exercise on a variety of airway emergencies will be included in the mechanical ventilation lab. In addition an exercise on the use of tracheostomy tubes with speaking valves will be incorporated into the advanced cardiopulmonary evaluation course. <b>EMPLOYER SURVEYS</b> One of 11 employers returning a survey indicated that one of the graduates possess did not possess the behavior skills required to be a competent respiratory care practitioner. All of the employers responding indicated that the graduates ♦ knowledge base and clinical proficiency were acceptable. The program was able to obtain responses for 11 of the 14 graduates resulting in a 78.5% response rate. With the transition to a new Director of Clinical Education changes have been made to strengthen clinical policies, student grading and tracking of student progress as well to improve communication with the clinical faculty. The program will continue to monitor employer satisfaction of graduate performance in the workplace. <b>GRADUATE SURVEYS</b> Graduates indicated that they possess the knowledge base, clinical proficiency and the behavioral skills required to be a competent respiratory care practitioner. All of the 14 (100%) graduate surveys were returned. All of the responses were at or above the neutral position on a five point Lickert scale. No action is necessary. <b>RESOURCE ASSESSMENT ACTION PLAN</b> Students and faculty feel the program has the resources necessary to obtain the goal of graduating competent respiratory care practitioners. The program will continue to develop strategies to optimize all of its resources especially the lab and Medical Director.</p>
<b>Assistant Dean</b>	I have reviewed and support the comments by the Respiratory Care coordinator. Recruitment is crucial in all Allied Health programs and the elimination of one or both summer sessions would improve student and faculty morale.
<b>Dean</b>	Concur with AD and coordinator comments. Need to keep our fingers on the pulse of each health program and their employer needs.

<b>Vice President</b>	I agree with Assistant Dean and Dean comments. The college's fiscal realities will necessitate another close look at this program to determine how we can effectively and efficiently meet student and industry needs.
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**Comments (2014-2015)**

<b>Roles</b>	<b>Comments</b>
<b>Coordinator</b>	
1. Strengths of the Program	Strengths of the program include a systematic system of measuring program outcomes and developing action plans for program improvement. National Board for Respiratory Care (NBRC) are consistently at or above the national average. Employer and graduate survey responses are in agreement that the program prepares graduates for success in the workplace. Resource assessment completed by students and faculty consistently indicate that the program has the resources to graduate competent respiratory care practitioners.
2. Items Requiring Continued Attention	Transition/Implementation of the curriculum in which technical courses are no longer offered during the summer.
3. Document and provide evidence indicating how last year's program review resulted in improvements in the program.	<p>Action Plan to Improve NBRC Exam Results The program will continue the strategies in place for success on the CRT exam. Strategies to improve graduate performance on the WRRT and Clinical simulations will be addressed in 2 ways. ♦ First- The program will provide mock NBRC board exams and clinical simulations to the students earlier in the curriculum. Students will be required to purchase the software in the fall of their second year. Initially the NBRC exams will be low stakes- meaning students will receive a passing grade for simply taking the exam. Later the students' grade on an exam will be factored into their clinical grade. This will not only make the students aware of the high level critical thinking questions they will face on the NBRC exams, but also provide valuable practice. ♦ The strategy of providing mock NBRC exams to improve graduate performance will also be used on the Clinical Simulation (Clin Sim) examination. Since Clin Sims are completely different than traditional exams, providing a number of practice simulations will be especially important to improve student confidence and performance on this required exam to become a Registered Respiratory Therapist. ♦ Secondly, the areas in which the class of 2013 performed less than the national average and the strategies for improvement are outlined below: ♦ 1C ♦ Recommend Procedures to Obtain Additional Data ♦ (89% of national avg.) Strategy for improvement will be to add emphasis on information gathering in the Cardiopulmonary Pathophysiology and the Advanced Cardiopulmonary Evaluation courses. In addition to mock NBRC exams, sample questions in this category will be added to clinical finals. ♦ 2C ♦ Perform Quality Control Procedures ♦ (94% of national avg.) Strategy for improvement- This category has been a problem in the past, including last year. It is felt that this content is covered throughout the curriculum especially in the RCP 140 course which has PFTs and ABG analysis and the mechanical ventilation courses. Students are also seeing PFT blood gas quality control in clinical. In addition to mock NBRC exams, sample questions in this category will be added to clinical finals. Finally a unit of material will be incorporated into the respiratory care seminar course to improve graduate performance on this content. ♦ 3A ♦ Maintain Records and Communicate Information ♦ (75% of national avg.) Strategy for improvement- representative NBRC type questions to illustrate this category will be found and presented to the students for discussion how this content area will be tested. This will be in addition to increasing the number of mock NBRC exams the students will take while in the program. ♦ 3B ♦ Maintain a Patent Airway Including the Care of Artificial Airways ♦ (94% of national avg.) Strategy for improvement-The efforts that were put in place to improve graduate performance on this category in the Advanced Cardiopulmonary Evaluation course should pay dividends in the performance of the class of 2014 in this category. Will add content on the rationale and procedure for changing out a tracheostomy tube. In addition to mock NBRC exams, sample questions in this category will be added to clinical finals. ♦ 3C ♦ Remove Bronchopulmonary Secretions remains below the national average ♦ (91% of national avg.) Bronchial hygiene protocols using case studies have already been incorporated into the Fundamentals of Respiratory Care course. In addition to mock NBRC exams, sample questions in this category will be added to clinical finals. ♦ 3J ♦ Act as an Assistant to the Physician Performing Special Procedures ♦</p>

	<p>(94% of national avg.) It is felt that this content is covered well in the lecture setting of the Advanced Cardiopulmonary Evaluation course. However a section on moderate conscious sedation will be added to the course. Will work to discuss and/or simulate assisting the physician in the lab portion of the course too. In addition to mock NBRC exams, sample questions in this category will be added to clinical finals. Clinical faculty will be made aware of this weakness and asked to incorporate strategies for improvement. Clinical faculty will be made aware of the areas in which the graduates performed less than the national average and the strategies created thus far for improvement during the next faculty meeting. Attention will then move towards strategies that can be incorporated in the clinical setting to improve graduate performance on the NBRC exams. Registered Respiratory Therapist (RRT) Credentialing Success RRT Credentialing Success Over the Past 3 Years (2011-2013) Graduating class # Graduates # Obtaining RRT % RRT Success 2013 13 10 77% 2012 14 9 64% 2011 14 9 64% The 68.2% RRT credentialing success over the past 3 years has improved over previous years and remains above the 50% RRT credential success threshold recommended by CoARC. (Note that CoARC no longer administers accreditation actions due to low RRT credentialing success but still wants programs to track this metric of credentialing success.) The program will continue to encourage students to take the RRT exams within a few months of graduation. Faculty will continue to inform students that: the RRT credential must be obtained within 3 years of passing the CRT exam; otherwise the CRT exam must be retaken to become re-eligible to sit for the RRT exams. the NBRC offers a \$50.00 discount for candidates who have passed the CRT and apply to take both the WRRT and the Clinical Sims within 60 days. even small increases in hourly wage resulting from becoming registered will pay for the cost of the exam over a relatively short period of time. opportunities for advancement in the field require obtaining the RRT credential. The Therapist Multiple Choice examination will be in place beginning in January of 2015. This may increase the number of graduates continuing on to obtain the RRT credential. If graduates obtain above the WRRT threshold they will become eligible to take the clinical simulation, effectively skipping the CRT exam and the associated costs/stress of one of the written examinations.</p>
<p><b>Assistant Dean</b></p>	<p>I have reviewed and support the comments by the Respiratory Care coordinator. Recruitment is crucial in all Allied Health programs and the elimination of one or both summer sessions would improve student and faculty morale. Providing more mock exams should improve student confidence and increase our already successful pass rate.</p>
<p><b>Dean</b></p>	<p>Good program with positive job placement for graduates. Strong industry support. Seasoned faculty who care about their program and their students.</p>
<p><b>Vice President</b></p>	<p>I concur with Assistant Dean and Dean comments. Jim provides committed leadership in this area! Like with all other technical programs, I encourage the program to consider additional apprenticeship and other industry sponsorship opportunities.</p>